



Aviation Investigation Final Report

Location:	Wilcox, Arizona	Accident Number:	WPR13LA113
Date & Time:	February 2, 2013, 16:30 Local	Registration:	N1421V
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that during a cross-country flight, the engine lost power. Despite his efforts, the pilot was unable to restart the engine and initiated a forced landing in rough terrain. During the off airport landing, the airplane nosed over. Postaccident examination of the airframe fuel system and engine run revealed no evidence of mechanical malfunctions or failures that would have precluded normal operation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power for undetermined reasons because postaccident examination of the airframe and engine did not reveal any abnormalities that would have precluded normal operation.

Findings

Not determined	(general) - Unknown/Not determined
Environmental issues	Rough terrain - Not specified

Factual Information

History of Flight

Enroute	Loss of engine power (total) (Defining event)
Landing-flare/touchdown	Nose over/nose down

On February 2, 2013 about 1630 mountain standard time, a Cessna 172M, N1421V, was substantially damaged during a forced landing on rough terrain in the Aravaipa Canyon, 26 miles north-northwest of Wilcox, Arizona. The pilot and 3 passengers were not injured. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed for the flight, and no flight plan was filed. The accident occurred during the last leg of a multi-leg cross country flight that originated from Globe, Arizona, at 1500 with a planned destination of Benson Municipal Airport, Benson, Arizona.

The pilot reported in a written statement to the National Transportation Safety Board (NTSB) that about 2,000 feet above ground level, the engine suddenly lost power. He switched the fuel selector handle from the "Both" position to the "Right" tank position, since the right wing fuel gauge indicated about half a tank. Despite his efforts, the pilot could not restart the engine and he initiated a forced landing onto rough terrain. The nose landing gear dug into the terrain during the landing roll and the airplane nosed over. The pilot further stated that he had about 12 gallons of fuel in the left tank and 18 gallons of fuel in the right tank prior to departure.

The airplane wreckage was removed from the accident site and transported to a secure facility for examination. According to the recovery team, both wing fuel tanks were found empty and soil underneath the wings was saturated with fuel.

The recovered engine and airframe were examined by representatives from the Federal Aviation Administration and the NTSB investigator-in-charge. Examination of the airplane revealed the empennage section, fuselage and wings were buckled and the vertical stabilizer and rudder were crushed downward. The airframe fuel system was examined and no anomalies were noted. The engine was prepared for a test run on the airframe. The engine ran smoothly for several minutes. The examination of the airframe and engine revealed no evidence of mechanical malfunctions or failures that would have precluded normal operation. See the Examination Report in the public docket for further information.

Pilot Information

Certificate:	Private	Age:	65
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	February 18, 2012
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	March 6, 2012
Flight Time:	800 hours (Total, all aircraft), 160 hours (Total, this make and model), 800 hours (Pilot In Command, all aircraft), 17 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N1421V
Model/Series:	172 M	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17263566
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	September 3, 2012 Annual	Certified Max Gross Wt.:	2200 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	8230 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	O-360
Registered Owner:	Michael Owen	Rated Power:	160 Horsepower
Operator:	Michael Owen	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	P13,3261 ft msl	Distance from Accident Site:	54 Nautical Miles
Observation Time:	15:00 Local	Direction from Accident Site:	145°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.2 inches Hg	Temperature/Dew Point:	19°C / -6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Globe, AZ (P13)	Type of Flight Plan Filed:	None
Destination:	Benson, AZ	Type of Clearance:	None
Departure Time:	15:00 Local	Type of Airspace:	

Airport Information

Airport:	Benson Municipal Airport E95	Runway Surface Type:	
Airport Elevation:	3831 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	32.746944,-110.238609(est)

Administrative Information

Investigator In Charge (IIC):	Swick, Andrew
Additional Participating Persons:	Mario M Villarrubia; FAA-FSDO; Scottsdale, AZ
Original Publish Date:	December 2, 2013
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=86127

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).